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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,842	02/11/2002	Norihiko Kubo	03500.016178	8953

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EXAMINER

ROYER, WILLIAM J

ART UNIT PAPER NUMBER

2852

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/068,842

Applicant(s)

KUBO, NORIHIKO

Examiner

William J. Royer

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-32 is/are allowed.
- 6) ☒ Claim(s) 1-20 and 23 is/are rejected.
- 7) ☒ Claim(s) 21,22,24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Drawings

The drawings are objected to because of the following informalities:

In Figure 1, reference numeral "7" is shown. In the specification, reference numeral "7" is used to identify registration rollers. In Figure 1, the lead line extending from reference numeral "7" does not appear to be pointing to registration rollers.

In Figure 1, the lead line extending from reference numeral "9" towards the fixing device should have an arrowhead placed on it so that the arrowhead on the lead line points towards the fixing device.

In Figure 1, reference numeral "12" is shown. In the specification, reference numeral "12" is used to identify a guide. In Figure 1, the lead line extending from reference numeral "12" does not appear to be pointing to a guide.

In Figure 1, change reference numeral "1s" to --- 13 ---.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities:

On page 2, line 3, change "machine" to --- apparatus ---.

On page 10, line 17, an arrow is identified, however, the arrow does not appear to be shown in any of the figures.

On page 11, line 1, registration rollers are identified without a reference numeral being associated with the registration rollers.

On page 12, line 14, change "3" to --- 130 ---.

On page 12, line 15, change "transfer" to --- toner ---.

On page 12, line 25, change "material" to --- medium ---.

On page 12, line 26, after "roller" insert --- 13 ---.

On page 12, line 26, after "belt" insert --- 130 ---.

On page 12, line 27, after "motor" insert --- (not shown) ---.

On page 12, line 27, after "rollers" insert --- 7 ---.

On page 13, line 1, after "guide" insert --- 12 ---.

On page 13, lines 2, 5 and 9, change "The" to --- A ---.

On page 13, lines 3, 6 and 14, after "body" insert --- 3a, 3b, 3c, 3d ---.

On page 13, line 3, after "charger" insert --- 2a, 2b, 2c, 2d ---.

On page 13, lines 4 and 8, after "charger" insert --- (not shown) ---.

On page 13, line 7, after "device" insert --- 1a, 1b, 1c, 1d ---.

On page 13, line 8, after "scanner" insert --- (not shown) ---.

On page 13, line 10, change "material" to --- medium ---.

On page 13, line 12, after "charger" insert --- 24a, 24b, 24c, 24d ---.

On page 13, line 13, after "means" insert --- 4a, 4b, 4c, 4d ---.

On page 13, line 14, it is stated that a "cleaning apparatus" has been described above. Where is it described?

On page 13, line 19, an arrow is identified, however, the arrow does not appear to be shown in any of the figures.

On page 14, line 3, after "rollers" insert --- 7 ---.

On page 14, line 20, change "the AC" to --- an AC bias ---.

On page 14, line 21, delete --- removal ---.

On page 15, line 4, change "photoelectric" to --- photosensitive ---.

On page 15, line 13, reference numeral "4" is used to identify a cleaning apparatus, however, reference numeral "4" does not appear to be shown in any of the figures.

On page 20, lines 2-10, numerous components are referred to without identifying which figures the components are shown. Further, none of the components are identified by a reference numeral.

On page 20, line 21, what is meant by "fun shape"?

On page 20, line 22, what is meant by "fun portion"?

On page 23, line 19, reference character "B" is used to identify a curtain member, however, reference character "B" was used to identify a scraping member previously in the specification.

On page 24, line 14, reference numeral "113" is used to identify a light source, however, reference numeral "113" does not appear to be shown in any of the figures.

On page 25, line 4, after "device" insert --- 9 ---.

On page 27, line 8, is the reference to "Fig. 4" correct? It appears that Figure 6 is being referred to, not Figure 4.

On page 28, line 17, is the reference to "Fig. 4" correct? It appears that Figure 6 is being referred to, not Figure 4.

On page 28, line 22, change "blades" to --- blade ---.

On page 29, lines 15 and 23, change "blades" to --- blade ---.

Appropriate correction is required.

It is noted that the above noted objections are just a few examples of the numerous problems with the specification. The specification is difficult to read because of the grammatical form that numerous sections of the specification have been written. Further, the use of reference numerals and reference characters to refer to elements shown in the figures is inconsistent, i.e., sometimes reference numerals and/or reference characters are used and sometimes they are not used. Furthermore, the terminology used to refer to elements varies throughout the specification, i.e., the same element may be identified using different terminology. The entire specification, pages 1-44, should be carefully edited when responding to this Office Action.

Claim Objections

Claims 1, 7, 10, 15, 17, 23, 26 and 31 are objected to because of the following informalities:

Claim 1, line 2, delete --- by ---.

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Claim 1, line 8, before "toner" insert --- collected ---.

Claim 7, line 3, change "the upstream side in the image" to --- an upstream side in an image ---.

Claim 7, line 6, before "toner" insert --- collected ---.

Claim 10, line 3, delete --- with ---.

Claim 10, line 3, delete --- for ---.

Claim 10, line 12, before "toner" insert --- collected ---.

Claim 15, line 3, change "the upstream" to --- an upstream ---.

Claim 15, line 6, before "toner" insert --- collected ---.

Claim 17, line 12, before "toner" insert --- collected ---.

Claim 23, line 3, change "the upstream side in the image" to --- an upstream side in an image ---.

Claim 23, line 6, before "toner" insert --- collected ---.

Claim 26, line 15, before "toner" insert --- collected ---.

Claim 31, line 3, change "the upstream side in the image" to --- an upstream side in an image ---.

Claim 31, line 6, before "toner" insert --- collected ---.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 11-12, "said toner conveying means" lacks proper antecedent basis.

Claim 2, line 4, "said toner conveying means" lacks proper antecedent basis.

Claim 3, line 2, "said toner conveying means" lacks proper antecedent basis.

Claim 10, line 7, "the image bearing body" lacks proper antecedent basis.

Claim 10, lines 10-11, "said image bearing body" lacks proper antecedent basis.

Claim 13, line 5, "said image bearing body" lacks proper antecedent basis.

Claim 13, lines 3-4, "the image bearing body moving direction" lacks proper antecedent basis.

Claim 13, lines 4-5, "said image bearing body" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 17-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakano. Referring to Figures 1 and 3, Nakano discloses a cleaning

device (i.e., cleaning apparatus) for cleaning toner from the surface of a photosensitive member 1 (i.e., image bearing body) in an image forming apparatus. The cleaning device includes a housing 2, a blade 4 (i.e., cleaning member), a seal member 5, a vibrating member 6 (i.e., toner breaking member), a convey means including a rotary screw 7 (i.e., toner carrying means; conveying screw; toner conveying means) for discharging a collected toner from the housing and a cover 3 for preventing contamination of the housing by toner. The vibrating member interferes with the rotary screw and is vibrated by the rotary screw. The vibrating member includes a plate-like portion 6A and a leg portion 6B extending downwardly therefrom. The plate-like portion extends substantially horizontally, and is formed with a number of slits 6x (i.e., plurality of free end portions) spaced from one another by a distance smaller than the pitch P of the rotary screw.

Allowable Subject Matter

Claims 5, 6, 8 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 10-16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 21, 22, 24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 26-32 are allowable over the prior art of record because the prior art of record fails to teach or suggest providing a cleaning member contacting a surface of an image bearing body for collecting toner; cleaning member moving means for holding the cleaning member and moving in reciprocation in a longitudinal direction of the image bearing body; a toner breaking member coupled with the cleaning member moving means and disposed in the vicinity of a contact portion between the image bearing body and the cleaning member for breaking toner in the vicinity of the contact portion and toner conveying means for conveying the toner.

Relevant Prior Art

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Knott et al disclose a conveyor for conveying toner in a cleaning device.

Maul et al disclose a toner cleaner system vibrator.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Royer whose telephone number is (703) 308-

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3127. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley can be reached on (703) 308-1373. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



William J. Royer
Primary Examiner
Art Unit 2852

wjr
March 20, 2003